

Remarks

In this discussion set forth below, Applicant does not acquiesce to any rejection or averment in this Office Action unless Applicant expressly indicates otherwise.

The non-final Office Action dated May 16, 2008, lists the following rejections: claims 1-6 stand rejected under 35 U.S.C. § 102(b) over Chao (U.S. Patent No. 4,818,715); claims 7, 8 and 10 stand rejected under 35 U.S.C. § 103(a) over Chao in view of Wristers (U.S. Patent No. 6,406,964); and claim 9 stands rejected under 35 U.S.C. § 103(a) over Chao and Wristers and further in view of Yu (U.S. Patent No. 6,225,176). The drawings are objected to for failure to designate Fig. 2 as "Prior Art." Reconsideration and allowance of the claims is requested in light of the arguments presented below.

Applicant disagrees with the objection to the drawings for failing to label Fig. 2 as "Prior Art." For example, there has been no determination that Fig. 2 cannot be illustrative of anything that is not prior art as defined under 35 U.S.C. § 102. Moreover, the Office Action has not pointed to any evidence to show that Fig. 2 is prior art under 35 U.S.C. § 102, and the undersigned cannot readily ascertain whether this "known" structure of Fig. 2 falls within or outside of 35 U.S.C. § 102. As such, the drawing objection cannot be maintained on such a basis. However, without acquiescing, and for the limited purpose of advancing prosecution and removing issues, Applicant submits herewith a corrected drawing sheet with the requested label under this interpretation, and Applicant requests that it be withdrawn.

Applicant respectfully traverses the § 102(b) rejection as applied to claims 1-4 because the Chao reference does not teach or suggest all the features recited in these claims. In particular, Chao does not disclose the semiconductor device as recited in claim 1 that includes a sloped insulating spacer positioned on either side of the gate electrode and contacting the intermediate regions and their associated extensions. The cited portions of Chao indicate ladder-shaped sidewalls positioned over lightly-doped source and drain extensions (*see, e.g.*, Figs. 5e-5i), rather than the sloped spacers claimed by Applicant. Chao teaches that the stepped ladder-shaped gate sidewalls allow the lightly-doped source and drain extensions to be formed simultaneously with the highly-doped source and drain regions (*see, e.g.*, Col. 7:29-43), and that the ladder-shaped gate is an

essential feature (*see, e.g.*, Col. 7:10-14). As such, the Chao reference cannot be understood to teach or suggest the sloped spacers recited in Applicant's claims.

With respect to claims 5 and 6, and without acquiescence or disclaimer, Applicant submits that the incorporation of subject matter from claim 7 into claim 5 renders the § 102(b) rejection moot. These claims are instead discussed below in regard to the § 103(a) rejection of claims 7, 8 and 10.

For at least these reasons, Applicant submits that the § 102(b) rejection has been overcome, and requests that it be reconsidered and withdrawn.

Applicant respectfully traverses the § 103(a) rejection of claims 7, 8 and 10 because the Chao and Wristers references are not properly combinable. In particular, the Chao reference teaches away from ion implantation performed at an acute angle to form intermediate source and drain regions between the source and drain and their respective extensions. As discussed above, an essential feature of Chao is the use of a ladder-shaped gate so that a single, normal angle ion-implantation step may be used to simultaneously form the highly-doped source and drain regions and their lightly-doped extensions. Applicant submits that the references are not properly combinable because the performance of a separate acute-angle ion implantation step would undermine the stated purpose of the Chao reference. *See* M.P.E.P. § 2143.01, and *In re Gordon*, 733 F.2d 900, 221 U.S.P.Q. 1125 (Fed. Cir. 1984) (A §103 rejection cannot be maintained when the asserted modification undermines purpose of main reference).

Applicant respectfully traverses the § 103(a) rejection of claim 9 because the Yu reference includes no teaching or suggestion to overcome the deficiencies noted above with respect to the underlying proposed combination of Chao and Wristers. In particular, any alleged disclosure by Yu of particular implantation energy conditions is irrelevant given the impropriety of the proposed combination of Chao and Wristers. Moreover, Applicant submits that the criticality of values within a generally disclosed range need not be shown when there is a failure to state a *prima facie* case of obviousness, as is the case here.

For at least these reasons, Applicant submits that the § 103(a) rejections are improper, and requests that they be withdrawn.

Applicant further submits that the art of record fails to teach or suggest the features additionally recited in newly-added claims 11-13. In particular, the cited art does not disclose forming the intermediate source and drain regions by acute angle ion implantation and that the source and drain region extensions are formed by means of an additional ion implantation step. For example, the stated purpose of the primary Chao reference is to form all the doped source and drain regions simultaneously in a single implantation step.

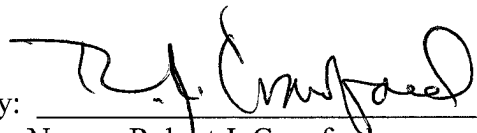
In view of the remarks above, Applicant believes that each of the rejections has been overcome and the application is in condition for allowance. Should there be any remaining issues that could be readily addressed over the telephone, the Examiner is asked to contact the agent overseeing the application file, Peter Zawilski, of NXP Corporation at (408) 474-9063 (or the undersigned).

Please direct all correspondence to:

Corporate Patent Counsel
NXP Intellectual Property & Standards
1109 McKay Drive; Mail Stop SJ41
San Jose, CA 95131

CUSTOMER NO. 65913

Attachment: One Replacement Drawing Sheet

By: 
Name: Robert J. Crawford
Reg. No.: 32,122
651-686-6633
(NXPS.548PA)